

## **Evaluation of evolutionary status of children with congenital hypothyroidism treated with levothyroxine**

### **ABSTRACT**

**Background and objective:** Congenital hypothyroidism is one of the most common preventative evolutionary disorders in newborns and children, which, if not treated promptly, leads to mental retardation and developmental disorders. The aim of this study was to investigate evolutionary status of children with congenital hypothyroidism treated with levothyroxine.

**Methods:** In a historical cohort study, 78 infants (44 boys and 34 girls) with congenital hypothyroidism under treatment with were evaluated by the ASQ questionnaire for their developmental status.

**Results:** Out of the total number of subjects examined, 32 were impaired and 46 were healthy in ASQ questionnaire. The results showed that 11 children had temporary congenital hypothyroidism and 67 had permanent congenital hypothyroidism. The results showed that there was no significant difference among the studied children in terms of height, weight, birth weight, maternal age, number of tests performed each year, average TSH is the first year of treatment, gender, place of residence, education and parental relationship. There was a significant correlation between number of visits at age 2 only in children 3 years old, the outcome of the ASQ test and the age of diagnosis and treatment initiation, the evolutionary status of the children in terms of the initial dose of treatment showed a significant difference between the two groups.

**Conclusion:** According to the findings of this study, it can be concluded that neonatal screening is one of the most successful health programs in the country, and the detection and initiation of hypothyroidism in neonates as soon as possible leads to a reduction in the evolutionary disorder in these children.

**Key Words:** Children, Congenital Hypothyroidism, development, Ages and Stages Questionnaire (ASQ)